

# Introduction

This Reference Guide prepared and distributed by the Illinois Department of Transportation (IDOT) is to promote uniform Computer Aided Drafting and Design (CADD) usage in roadway drafting. Also, these requirements and procedures provide a basis for common interchange of CADD related planimetric data files between the Illinois Department of Transportation, Division of Highways, and outside contractors and consultants. The guide is not a substitute for CADD knowledge, experience or judgment, nor is it a set of inflexible rules. Requirements listed in the Professional Transportation Bulletin (PTB) or individual district contract specifications may supersede some of the guidelines recommended in this publication. The Department's CADD professionals assume that the user's general level of understanding and prior knowledge is that of an experienced user of CADD technology.

The information and CADD data described in this guide are subject to change and is not a permanent commitment by the IDOT, Division of Highways. Organizations exchanging IDOT CADD data are responsible for ensuring they are using the current version of these requirements, CADD Reference Manuals, and IDOT cell files. IDOT assumes no responsibility for any errors that may appear in this document.

The following paragraphs state the Illinois Department of Transportation's current position regarding the exchange of CADD data.

# Graphic File Format

CADD compatible file for the IDOT Division of Highways means that all CADD files must be in MicroStation J .DGN format. This requirement ensures that IDOT receives a final product that is directly usable on IDOT's CADD systems without additional work. MicroStation J supports two file formats (J and 5.x). This allows the consultant and the Department to use J or 5.x versions of MicroStation and provide each other files in 5.x format. The Professional Transportation Bulletin contains the department's current version of MicroStation and upgrade plans. The responsibility for providing a complete, correct CADD data disk rests with the consultant or contractor. All CADD files provided by IDOT will also be in MicroStation J or 5.x .DGN format. This ensures that all planimetric data is available to the consultant or contractor and that there is no data loss in a translation process. IDOT will create and retain a duplicate set of these files.

The department utilizes MicroStation CADD software features that may not translate directly to other systems. For example, IDOT cell libraries define standard plan and plan and profile sheet borders. Another example is the department's use of reference files. IDOT prefers that the plan or plan and profile form utilize MicroStation's reference file feature. This permits plotting of final drawings using a "virtual" copy of the continuous design so that repeated changes will not be necessary in several places. When translated to some other CADD systems, the "virtual" move does not occur and sheets appear blank. Each of the CADD software vendors employs proprietary features that may also result in problems when translations are necessary. The responsibility to provide the department with correct and complete CADD data rests with the consultant or contractor.

## Reference Guide Updates

Changes in CADD roadway drafting by IDOT will result in periodic updates of this reference guide. All district systems receive these changes within a reasonably short time frame. The District's CADD systems normally receive software upgrades as they are produced.

Updates to this guide will be made available concurrently with the changes to the CADD systems.

## Obtaining Roadway Cell Libraries

The cell libraries and the CADD Roadway Drafting Reference Guide are updated as needed. It is the responsibility of the consultant or the contractor to use current cell libraries and to follow currently specified drafting procedures. In order to assure this, it is recommended that your firm's senior CADD person meet with his/her counterpart in the district before starting any new project work.